

2. Process for the adjustment of a switchable flow-limiting device according to claim 1, wherein said device that includes said flow-limiting device is an infusion pump for implantation into a patient's body for treatment of the patient with medicament, said infusion pump having at least one puncture point for filling a supply container to store a selected medicament, further comprising:

transporting said selected medicament from said supply container to said flow-limiting device by means of a liquid transporting arrangement, and

introducing said selected medicament from said supply container into said patient's body by means of said throttle paths.

3. Process for the adjustment of a switchable, flow-limiting device according to claim 2, further comprising measuring filling-level values of said supply container with a sensor and storing said filling-level values intermediately in a memory in said infusion pump.

4. Process for the adjustment of a switchable, flow-limiting device according to claim 1, wherein said switchable flow-limiting device comprises a valve having at least three stable positional operating states.

5. Process for the adjustment of a switchable, flow-limiting device according to claim 1, wherein said energy transmitting step comprises transmitting energy only intermittently.

6. Process for the adjustment of a switchable, flow-limiting device according to claim 1, wherein said switching step comprises moving a piston within said flow-limiting device between two stable end positions in an interior of said flow-limiting device and a third stable position achieved by combination of magnetic holding force and restoring spring force.

7. Process for the adjustment of a switchable, flow-limiting device according to claim 6, further comprising retaining said switchable, flow-limiting device in said stable positions without drawing electric current.

8. Process for the adjustment of a switchable, flow-limiting device according to claim 1, wherein said energy transmitting step comprises transmitting said energy inductively.

9. Process for the adjustment of a switchable, flow-limiting device according to claim 1, further comprising transmitting intermediately stored data from an interior of an infusion pump that includes said flow-limiting device to said

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service device by means of a data transmission device having portions located in said infusion pump and in said service device.

10. Process for the adjustment of a switchable, flow-limiting device according to claim 1, wherein said energy transmitting step comprises transmitting energy inductively by means of absorption telemetry.

11. Apparatus for adjustment of the flow of liquids or gases inside a patient's body, comprising:

10 a device inside said patient's body including a flow-limiting device,

and a service device outside said patient's body that enables switching of said flow-limiting device,

15 wherein said flow-limiting device is a switchable flow-limiting device having at least three stable operating states,

20 said flow-limiting device and said service device being spatially separated with no bodily connection between said flow-limiting device and said service device,

a plurality of throttle paths arranged to follow said flow-limiting device in said device that includes said flow-limiting device, and

25 a device for transmitting energy needed for adjustment of said flow-limiting device from said service device to switch said flow of said liquids or gases from one throttle path arrangement to another only during the duration of energy transmission from said service device,

30 said flow-limiting device comprising a piston in a chamber within said flow-limiting device and an integrated leaf spring structure for mounting and guiding said piston,

35 said piston being stable in three positional operating states, and

said chamber having at least one lateral intake and at least two end faces with a central opposed outlet on each of said at least two end faces.

40 12. Apparatus according to claim 11, wherein said piston comprises a permanent magnet further comprising a separately actuatable electromagnet having a coil former on each side of said at least two end faces.

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Attachment A

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050750-1533660

Attachment B

Claims 1 and 11 specify a flow-limiting device inside a patient's body having at least three stable operating states. As a result of this error the patentees claim less than they had a right to claim.

Claim 1 and 11 are amended in this Reissue Application to specify an electromechanical flow limiting device that limits flow of liquids or gases from a medicament supply container inside a patient's body having multistable operating states, rather than at least three stable operating states.

Claims 4 and 11 have been amended to recite that the flow limiting device comprises a valve (a piston in claim 11) having at least two --rather than three-- positional operating states. A corresponding change is made in claim 6.

The claims as amended are supported in the specification and drawings, for example, in column 3, lines 13-17, lines 32-37; Figures 2 and the discussion in column 6, lines 28-34; Figure 3 and the discussion in column 7, lines 23-33.

The claims also claim less than the patentee's have a right to claim by failing to recite:

An implantable medical pump comprising a fluid reservoir; a passive regulator assembly adjustable to a plurality of flow rate settings for regulating the flow of fluid from the fluid reservoir; an electromechanical controller for changing the passive regulator assembly from a first flow rate setting to a second flow rate setting when the electromechanical controller receives an induced voltage and in response to control signals; and a receiver for receiving radio frequency signals operative to maintain the

induced voltage in the electromechanical controller in response to received radio frequency signals.

These features are supported in the specification and drawings. Figure 1 shows an implantable pump (1) comprising a fluid reservoir (3), a passive regulator assembly (6, 7) adjustable to a plurality of flow rate settings for regulating the flow of fluid from the fluid reservoir, an electromechanical controller (15 in Figure 2) for changing the passive regulator assembly from a first flow rate setting to a second flow rate setting when the electromechanical controller receives an induced voltage and in response to control signals, and a receiver (34-42 in Figure 6) for receiving radio frequency signals operative to maintain the induced voltage in the electromechanical controller in response to received radio frequency signals.